ANNUAL REPORT

1984 - 1985

Alberta

WATER RESOURCES COMMISSION

Alberta
WATER RESOURCES
COMMISSION

Office of the Chairman

910 Harley Court, 10045 - 111 Street, Edmonton, Alberta, Canada T5K 2M5 403/422-4232

June 9th, 1986

The Honourable Dr. P. N. Webber
Chairman, Economic Planning and
Resource Development

Sir:

I have the honour to present the Annual Report of the Water Resources Commission for the year ending March 31st, 1985.

Respectfully submitted,

Henry Kroeger, M.L.A.
Chairman

Alberta
ENERGY AND NATURAL RESOURCES

Office of the Minister

407 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-3740

May 29th, 1986

Her Honour Helen Hunley
Lieutenant-Governor of the
Province of Alberta

Madam:

I have the honour to hereby transmit the Annual Report of the Water Resources Commission for the year ended March 31st, 1985.

Respectfully submitted,

Neil Webber

Dr. P. N. Webber
Chairman
Economic Planning and
Resource Development

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ALBERTA WATER RESOURCES COMMISSION

The main terms of reference and objectives for the Commission are to provide advisory services to the Alberta government on water resource policy relating to:

(a) long term planning in relation to agriculture, economic development, community and recreation, and environmental factors with respect to the water resource;
(b) provincial policy relevant to short and long term water resources projects;
(c) review and advise on intergovernmental negotiations on water resources;
(d) consideration of the legislation respecting the administration of the water resource.

Alberta is committed to use water to support overall social and economic objectives while safeguarding the water resource for future generations. The Commission's role in support of these objectives is basically to advise on policy matters for the purpose of providing assistance in decision-making by the departments responsible for the administration and management of water. The Commission provides a forum for weighing water resource issues affecting a wide spectrum of users, some of whom may be clients of a number of departments in the government, and covering many disciplines. For this reason, the Commission membership is broad-based and includes public members, senior officials from five departments (at the Assistant Deputy Minister level), and elected M.L.A.'s. This provides for high quality technical and management expertise, public contact and inputs, and political perspectives.

By and large, the membership brings forward the significant water management issues for the consideration of the Commission and there is particular emphasis with respect to multi-use water resource policy. It is an accepted position that most water resource uses and issues impact a fairly large percentage of the population and are not isolated to single uses or segments of society. The Commission does, however, have the responsibility to investigate and research in areas where there are gaps in information and/or where enhancement in knowledge will be of value in water resource management policy. It must be acknowledged that water management is often very complex and technical in nature and that this requires that the management and user departments maintain high levels of both technical and administrative competence. The Commission has provided a formal process for bringing the disciplines from many government departments together for the consideration of water resources policy.

ISSUES AND ACTIVITIES

During the year, the Commission considered and dealt with an extensive number of water resource issues and activities:

— monitored drought conditions particularly in relation to the effects and requirements for water supply and emergency action;
— reviewed Milk River storage development policy in relation to the International Boundaries Agreement which apportions water in the basin;
— participated in the Oldman River Dam site review and evaluation process;
— reviewed Peace River basin preliminary planning including the status of negotiations with British Columbia with respect to present and future flow regulation and use;
— participated in a review of the capital works program for upgrading irrigation headworks;
— reviewed five-year capital works program for infrastructure rehabilitation and expansion in the Irrigation Districts — managed by Alberta Agriculture, including a review of the cost-sharing formula between the Province and the Irrigation Districts;

— reviewed planning and investigated drainage projects in east-central and northern Alberta with respect to excess moisture, flooding, and erosion;
— preliminary investigation and review of snowpack enhancement research;
— reviewed federal Water Inquiry initiative including their hearing process;
— participated in a review of the agricultural land base evaluation undertaken by Alberta Agriculture;
— reviewed and supported advancement in drainage planning with respect to potential drainage projects in the north and made a recommendation to the Cabinet Committee on Economic Planning and Resource Development respecting acceleration of the planning process, which was approved;
— monitored the drainage inventory study which was initiated in the previous fiscal period and has progressed into the phase of estimating potentially drainable wetlands throughout the agricultural areas of the province and developing more defined measurements of drainability in representative areas throughout the east-central and northwestern parts of Alberta, two of which were completed during this period. This project is being managed by Alberta Environment and was sponsored by the Alberta Water Resources Commission;
— monitored the agricultural irrigability soils and land analysis being undertaken in southern Alberta to provide for an expanded information base for determining suitable areas for future water assignment to irrigation. This project is being managed by Alberta Agriculture and is sponsored by Alberta Water Resources Commission;
— reviewed the South Saskatchewan River Basin Planning Program which had been undertaken by Alberta Environment in preparation for holding public hearings on the future management of the water resources in the basin;
— planned, scheduled, and conducted public hearings on the South Saskatchewan River Basin Planning Program in southern Alberta during November and December of 1984;
— reviewed questions arising from the public hearings inputs with the affected departments and agencies including Environment, Agriculture, Utilities, Recreation and Parks, Municipal Affairs, Economic Development, Energy and Natural Resources, Alberta Irrigation Projects Association, and the Irrigation Council;
— reviewed irrigation efficiency factors with the Alberta Irrigation Projects Association and attended seminars on efficiency; and
— commenced detailed development of the Commission Panel's report on the South Saskatchewan River Basin Planning Program including the public inputs, analysis of the study, and other information.

The Commission held eight meetings. The Commission's appointed Hearings Panel, which was also assigned the responsibility to prepare a report and recommendations on the South Saskatchewan River Basin Planning Program, held six formal meetings throughout the year and attended a number of public information meetings in addition to fifteen days of public hearings.

Climatic Impacts

The beginning of the 1984/85 fiscal period followed a winter of low precipitation and snowfall which signalled conditions for drought. While the snowpack on the Eastern Slopes of the Rockies was fair to good, the following period was extremely dry with little supporting precipitation. The Commission participated in monitoring the drought conditions which were centered in the south. In contrast, early spring flooding and excessive moisture affected crop seeding and germination in the northern part of the province demonstrating the wide climatic variation affecting the land and water resources throughout the province.

A great deal of the Commission's time and effort was therefore committed to and dealt with water shortage issues in the south where the ordinarily limited water supply was strained further due to the severe drought which increased in intensity throughout the summer.

South Saskatchewan River Basin Planning Program

The completion of the major study by Alberta Environment of the whole of the South Saskatchewan River Basin, involving the Red Deer, Bow, and Oldman Rivers and their tributaries, set the stage for the next phase which was the development and undertaking of the public hearings. These hearings were to provide public input to expand the analysis towards developing policy recommendations on future water resources management for that area. Alberta Environment's detailed study and the resulting reports formed the background for public information meetings and for the public's use in developing responses to the public hearings. The hearings were scheduled in ten locations within the basin: Calgary, High River, Lethbridge, Taber, Vulcan, Brooks, Medicine Hat, Strathmore, Hanna, Red Deer — commencing on November 6th and ending on December 12th. These hearings were well-attended and the briefs were of high quality. In total, 210 briefs were received together with a number of additional written papers and letters and a transcript was produced involving approximately 5,000 pages. The policy issues which were the basis for the extensive study and the hearings were briefly as follows:

1) which water uses have priority;
2) how will water be managed to support these uses; and
3) how will the Red Deer, Bow, and Oldman Rivers contribute to meet Alberta's commitment to Saskatchewan.

The hearings information was categorized on the basis of subject, issue, location, and other factors and committed to computer storage for ready retrieval in preparing a report and recommendations to be presented to the Cabinet Committee on Economic Planning and Resource Development, when completed. Questions and issues relating to various government departments were consolidated and the hearings panel met with these departments to receive their responses during the latter part of the fiscal period.

The panel members appointed by Order-in-Council were:

Henry Kroeger, M.L.A., Chinook, and Chairman of the Commission

C. R. Elliott, M.L.A., Grande Prairie, and Vice-Chairman of the Commission

Margaret Lounds, Commission member (Calgary)

K. C. Mackenzie, Commission member (Edmonton)

R. B. Wells, appointed to replace Justice M. M. Porter as a panel member for the hearings (Lethbridge).

The hearings panel and the Secretariat of the Commission proceeded to develop the report and recommendations on the South Saskatchewan River Basin Planning Program, using the study background, all of the inputs to the hearings and the responses from departments and agencies.

Irrigability Analysis

A project for an inventory of potentially irrigable lands was developed in the 1983/84 fiscal period with the start-up of the field work in 1984. The objective of this project which would define and outline lands which could be successfully irrigated over a long period of time was for the purpose of extending and refining the choices for increasing irrigation acreage when assigning uncommitted water supplies. During 1984, five blocks of land were classifed involving a total area of 587,520 acres. The project was managed by Alberta Agriculture and the work was performed by consultants reporting to them.

Drainage Inventory

The Drainage Inventory Study was started in 1983 and was scheduled for completion in 1986. The purpose of the study and investigation was two-fold:

1. to determine the amount of wetlands within the agricultural areas of the province; and
2. to assess the feasibility of draining wetlands in order to put lands into agricultural production.

The study was extended to increase investigation on the impacts of decisions on drainage on the loss of wildlife and waterfowl habitat and the potential effects on the fish habitat. The first portion of the study which was finished in this period identified some 10.8 million acres of wetlands. The second portion which is being evaluated has involved investigating agricultural benefits to be obtained from drainage and the impacts and costs of on-farm and off-farm drainage works and takes into account losses of wildlife, waterfowl, and fish habitat. A preliminary economic analysis is also being undertaken and special attention is being given to the physical impacts on wildlife and waterfowl populations. This report will provide important information for considering agricultural land base expansion potential in wetland areas, however it will be necessary to extend and intensify this information base when finally priorizing areas for such expansion. The Summary report on this project will be completed in 1986.

The Federal Water Inquiry

The Commission monitored the process and progress of the Federal Water Inquiry with respect to Alberta waters. The federal commission held hearings in Alberta on October 9th and 10th in Calgary, and October 11th and 12th in Edmonton. As the results of this report have not been released in this period, it is not possible to contemplate the implications for Alberta. It was noted, however, that inputs on irrigation with respect to the prairie area of western Canada was fairly generalized except for submissions by Canada West, and the Canadian Water Resources Association who presented a fairly clear representation of prairie irrigation agriculture. It will be important to follow-up on this inquiry and deal with specific water resource issues raised when the report is completed and released.

Water Sourcing

The drought conditions and the effect of these on smaller scale water supplies required a significant amount of emergency pumping to sustain domestic and livestock water needs. As the drought conditions continued throughout the year, supply sources dwindled and required increased pumping distances. The critical period was handled effectively by the Departments of Environment and Agriculture, with some equipment support from P.F.R.A. It was observed, however, that some steps to drought-proof by the development of more sustained water sources and storage capacity would be desirable particularly for those areas and situations where chronic shortages make repetitive emergency action necessary. The Commission supported the initiation of programs to improve water source development and longer duration storage.

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